

CLAIMS

What I claim as my invention is:

1. A four-cycle, multi-chamber rotary internal combustion engine, comprising:

a stator having right-prism-shape exterior body and hollow core formed by two concentric cylindrical surfaces which fluently transit one into the other via ramp surfaces;

a rotor having cylindrical body of the same height as of said stator and external diameter corresponding to the diameter of smaller concentric surface forming the hollow core of said stator;

wherein said rotor has a radial rectangular grooves along its whole height;

a vane-type pistons having rectangular body with the same height as of said rotor and being positioned in said grooves of said rotor;

wherein said pistons are provided with a means of moving in a radial direction within said grooves of said stator with their outer facet tightly contouring the inner surface of said stator;

said rotor being positioned in said stator concentrically to cylindrical surfaces forming the hollow core thereof;

a side lids of said stator.

2. The four-cycle, multi-chamber rotary internal combustion engine as claimed in claim 1, wherein a cavities within the stator made in the places where the inner surface of the stator has the same radius as that of the rotor form a combustion chambers.

3. The four-cycle, multi-chamber rotary internal combustion engine as claimed in claim 2, wherein spaces between outer surface of the rotor and inner surface of the stator with bigger radius form a working chambers.

4. The four-cycle, multi-chamber rotary internal combustion engine as claimed in claim 3, wherein said combustion chambers are connected with said working chambers via openings in the area of the ramp surfaces connecting the two concentric cylindrical surfaces of said stator;

wherein timing of physical connection between said combustion chambers and said working chambers via the openings is controlled by valves.

5. The four-cycle, multi-chamber rotary internal combustion engine as claimed in claim 4, wherein intake of fuel mixture and exhaustion of waste gasses in and out of said working chambers is made via valve-controlled openings nearby the opening connecting said combustion chambers and said working chambers.